

REMARKS

Claims 1-16 are pending in the application.

Double Patenting

Claims 1-16 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 15-31 of copending application No. 11/629,351.

Since this is a provisional double patenting rejection, Applicants prefer to respond to this rejection when this rejection becomes the only issue remaining in the present application.

Claim Rejections - 35 U.S.C. § 102/103

(a) Claims 1-3, 8, 9, and 12-15 have been rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Schlager et al. (US 2003/0164308). This rejection is respectfully traversed.

In the *Response to Arguments* section of the Office Action, the Examiner maintains the rejection and states:

The “programmed” control circuit of Schlager would accomplish the claimed function, because the patent teaches the selection of “the smallest current level: in conjunction with the treatment time employed (section [0057]). It is unclear what structure the claimed control circuit configured to perform the function of the instant application is different from that disclosed in the prior art. Indeed figure 5 of Schlager discloses an algorithm which is capable of producing the claimed function.

Applicants respectfully disagree with the Examiner’s interpretation of that the Schlager reference “would accomplish” or “is capable of producing” the claimed function at least because

Schlager does not specifically disclose or suggest the claimed function. However, in an attempt to expedite prosecution of the present application, claim 1 has been amended to claim:

wherein the control unit includes a counter that counts a first predetermined period and a second predetermined period, and is configured to, in a period from one voltage polarity reversal to a next voltage polarity reversal, operate the drive circuit, from when the polarity of the voltage applied between the electrode is reversed until the first predetermined period elapses, in a first current mode in which a value of a current flowing between the electrodes equals a first value, and operates the drive circuit thereafter in a second current mode until the second predetermined period elapses in which a value of the current flowing between the electrodes equals a second current value smaller than the first current value. (*emphasis added*)

The foregoing “counter” is disclosed in paragraph [0045] of the substitute specification, and it is clear from Figs. 4, 5, 6, 7, 11A-C, and 13A-B that the counter counts the first predetermined period (m1) and the second predetermined period (m2).

The Schlager reference discloses a DC polarity switch unit 12 that interconnects input lines 10 and 11 of the DC power supply to lines 13 and 13a connected to the electrodes 2 and 3, respectively of cell 1. The switch unit 12 has switch arms 14-14a operated to the alternate position engaging contacts 16 and 17 to apply a reverse polarity of voltage to the cell 1. The position of the switch arms is controlled by a switching control unit 20 connected to a low voltage 120AC supply 21. The switching control 20 includes a polarity switch driver 24 that alternately energizes the relay 22 to move the contact arms between the alternate positions. (see paragraph [0116] of Schlager).

However, Schlager does not disclose or suggest “a counter that counts a first predetermined period and a second predetermined period,” and thus does not apply a current in the first mode until the first predetermined period elapses, and does not apply, thereafter, a

current in the second current mode until the second predetermined period elapses, as required in claim 1.

Claims 2, 3, 8, 9, and 12-15, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 4-7 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Schlager, and further in view of Hayes (USP 6,929,740). This rejection is respectfully traversed.

Claims 4-7, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(c) Although the Examiner did not specifically point out in the Office Action, Applicants assume that the Examiner has intended to maintain the rejection of claims 10-11 under 35 U.S.C. § 103(a) as being unpatentable over Schlager, and further in view of Grundler (USP 4,769,119). This rejection is respectfully traversed.

Claims 10 and 11, indirectly dependent on claim 1, are allowable at least for their dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(d) Although the Examiner did not specifically point out in the Office Action, Applicants assume that the Examiner has intended to reject claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Schlager, and further in view of Ooe et al. (US 2006/0130533). This rejection is respectfully traversed.

Claim 6, indirectly dependent on claim 1, is allowable at least for its dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Conclusion

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and allowance of the pending claims in the present application are respectfully requested.


The Examiner is respectfully requested to enter this Amendment After Final in that it raises no new issues. Alternatively, the Examiner is respectfully requested to enter this Amendment After Final in that it places the application in better form for Appeal.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi, Registration No. 40417 at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

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Respectfully submitted,

By  (reg. # 40,417)
Charles Gorenstein
Registration No.: 29271
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road, Suite 100 East
P.O. Box 747
Falls Church, VA 22040-0747
703-205-8000